

## Environmental Protection Agency 2021 Targeted Airshed Grant Program Wood Burning Appliance Change-Out Program

### Emissions Inventories

The California Air Resources Board (CARB) distributes the emission inventory for residential wood burning into two categories of appliances: 1) Fireplaces and 2) Wood Stoves. However, the wood burning appliances in the Valley consist of three categories: 1) Fireplaces, 2) Pellet-Fueled Wood Burning Heaters, and 3) Wood Burning Heaters. The CARB emission inventory for “Wood Stoves” includes emissions from both types of heaters (pellet-fueled wood burning heaters and wood burning heaters).

The latest emissions inventory for residential wood burning can be found in CARB’s inventory (CEPAM version 1.05). This inventory provides emissions for residential wood burning from fireplaces and wood stoves and also provides annual and winter season daily averages.

County	Wood Stove PM <sub>2.5</sub> (tpd)	Fireplace PM <sub>2.5</sub> (tpd)	Total
Fresno	0.72	0.59	1.32
Kern	0.39	0.42	0.81
Kings	0.06	0.08	0.14
Madera	0.13	0.08	0.21
Merced	0.34	0.20	0.53
San Joaquin	0.40	0.58	0.98
Stanislaus	0.42	0.45	0.87
Tulare	0.36	0.26	0.62
<b>San Joaquin Valley Total</b>	<b>2.81</b>	<b>2.68</b>	<b>5.49</b>

Residential wood burning is a significant contributor to Valley PM<sub>2.5</sub> emissions during the winter season. Based on data from the Metropolitan Planning Organizations, the U.S. Census, and survey results, the District estimates that there are over 240,000 residences that burn in the Valley contributing 13% of total winter-time PM<sub>2.5</sub> emissions. However, during peak winter days, organic carbon contributes up to 33% of the composition of PM<sub>2.5</sub> emissions in the Valley, the vast majority of which is from residential wood burning.